DEFENSE INFORMATION INFRASTRUCTURE (DII)

COMMON OPERATING ENVIRONMENT (COE)

DISTRIBUTED COMPUTING ENVIRONMENT CLIENT (DCEC)
Segment v1.0.0.6
Installation Instructions for Solaris 2.5.1

September 30, 1997

Purpose

These instructions describe how to install and configure the Distributed Computing Environment Client (DCEC) Segment for the Solaris 2.5.1 operating system using the Defense Information Infrastructure's Common Operating Environment (DII COE) Version 3.2.

References

- Transarc DCE 1.1 Release Notes for Solaris version 2.5[1]
- Transarc DCE Administration Guide: Core Components
- Transarc DCE 1.1 Command Reference
- Transarc DCE 1.1 Command Reference Supplement
- Transarc DCE Installation and Configuration Guide

What you will need during DCEC Installation

- The DCEC segment can be installed and configured later when a cell is available.
- A DCE cell. A fully functional DCE cell must be up and running before the DCEC is configured. This includes having a Security Server, CDS Server and Time Server.
- The cell administrator's password. The Transarc **dcesetup** commands and other scripts created for the purpose of installing DCEC will prompt for the cell administrator's password..
- Familiarity with the COE Installer.

Installation of DCEC

1. Log in as the System Administrator (sysadmin) and insert the segment tape into the tape drive.

2. Bring up the Segment Installer and use <Select Source> to select the appropriate tape drive (Exabyte, DAT, local, remote, etc) and then select <Read Source>.

3. Highlight the DCE Client Segment and select <Install>.

4. The COE Installer will extract the segment from the 8mm tape, this may take a few minutes.

5. A green window will display the installation of the DCE Client software.

[1] Transarc DCE 1.1 Upgrade and Release Notes for Solaris Version 2.5, dated April 1996, state "Support for Solaris 2.5.1 is not included as part of this release." This is INCORRECT. Transarc DCE for Solaris 2.5 will operate normally on a Solaris 2.5.1 machine.

You may receive the following message :

```
Do you wish to install conflicting files [y,n]
```

Enter "y" to continue the installation.

6. Once the software is installed, you will be asked if you wish to configure the client:

```
Do you wish to configure the DCE Client now
Press [y] for yes or [n] for no, then press [Return] (default: y)
```

If you wish to configure the DCE Client now, enter "**y**", if not enter "**n**". If you enter "**n**" you will receive this message:

```
You can configure the DCE Client at anytime by
selecting <NETWORK> | <DCE> from the SYSADMIN
pull-down menu.

      Press <RETURN> to EXIT
```

If you enter "**y**" then you will go on to the Configuration phase of the Installation.

Configuration of DCEC

Before you configure the DCE Client, it is mportant that you remember that you must have a fully functional DCE cell active in order to configure the client. During configuration, it will be necessary to contact the various servers and if they are not operating, the configuration will fail. You will also need the cell administrator's login name and password. You will be prompted for them during the configuration.

1. When you first decide to configure the DCE Client (whether at install time or at a later date), you will receive this message:

```
You can select to configure the DCE Client now
if you have the following information:

           DCE cell name
           Host IP address of the master security server
           name of the cell administrator
           cell administrator's password


The local clock needs to be synchronized with the server within
5 minutes

Would you like to continue with DCE Client configuration (y/n) [y]:
```

Simply enter "**y**" to continue

2. You will then be prompted for the name of the cell:

```
Enter the cell name (without /.../) : specforcom.mil
```

Simply enter the name of the cell (in this case specforcom.mil). You will be asked to confirm this name:

```
Is < specforcom.mil > correct? (y/n) [n]: y
```

Just enter "**y**".

2. You will then be prompted for the IP address of the Master Security server

```
Enter the IP address of the Master security server : 204.252.13.124
```

Enter the IP address. You will be asked to confirm this address:

```
Is < 204.252.13.124 > correct? (y/n) [n]: y
```

Enter "**y**".

3. You will be prompted for the cell administrator's name:

```
Enter the name of cell administrator [ cell_admin ] : cell_admin
```

Enter the cell administrator's name and confirm the name when prompted to do so.

```
Is < cell_admin > correct? (y/n) [n]: y
```

4. You will be asked if you wish to configure your host as a Distributed File Service Client:

```
Would you like to configure this node as a DFS client (y/n) [n]:
```

Answer "n" to this question unless you have a DFS server running. The DFS server is a separate segment.

5. You will now be asked if you wish to configure your host as a Distributed Time Server:

```
Would you like to configure this node as a local DTS server (y/n) [n]:
```

If you wish to configure your host as a DTS server then enter "y" , if not enter "n".

6. You will be asked if you wish to configure your host as a Audit Server:

```
Would you like to configure this node as an Audit server (y/n) [n]:
```

If you wish to configure your host as an Audit Server just enter “y” if ot enter “n”.

7. Now that all of the questions regarding configuration have been answered, the segment will now configure itself according to your specifications. The system will list all of the newly activated processes as they come on line. If you only elected to configure the host as a DCE Client then You will be asked to enter the cell administrator’s password and the system will display the following processes:

```
 Start Configuring....
cell_admin's password:
        Configuring security client.
        Using the kerberos5 port number in /etc/services
        Creating /krb5/krb.conf file (specforcom.mil 204)
        Creating /opt/dcelocal/dce_cf.db (cellname /.../specforcom.mil,
                hostname hosts/borg)
        Configuring dced.
        Initializing dced databases.
        Starting process dced
        Creating /opt/dcelocal/etc/security/pe_site file.
        Authenticating as cell_admin.
        Creating ktab entry in registry for this client node
        Securing dced acls...
        waiting for dced to create string binding
        Activating secval service
        Configuring CDS advertiser.
        Creating the cds.conf file.
        Starting process cdsadv
        Authenticating as cell_admin.
        Creating hosts/borg objects in name space.
        Editing ACLs.
        Authenticating as cell_admin.
        Starting process dtsd
        Synchronizing (skulking) cds directory /.:
        Authenticating as cell_admin.
        dcesetup succeeded.
```

If you elected to configure your host as a DTS server, you will be asked to re-enter the cell administrator’s password and the following additional processes will be displayed:

```
Start Configuring DTS server....
cell_admin's password:
        Authenticating as cell_admin.
        Deactivating and stopping DTS
        Executing "dcecp -c dts deactivate; dts stop"
        Adding member hosts/borg/self to sec group subsys/dce/dts-
servers
        Reauthenticating to pick up new DTS group membership.
        Deactivating secval service
        Removing
/opt/dcelocal/var/security/creds/dcecred_ffffffff* files.
```

```
Activating secval service
Authenticating as cell_admin.
Starting process dtsd
Synchronizing (skulking) cds directory /.:
Authenticating as cell_admin.
dcesetup succeeded.
```

If you also configured your host as an Audit Server these processes will also be displayed:

```
Start Configuring Audit server....
        Configuring auditd.
        Starting process auditd
        Creating default filters for security, dts, and auditd.
        dcesetup succeeded.
```

8. When the configuration is complete, the following message is received:

```
Please enter q to exit the DCE client configuration display:
```

Just enter "q" to complete the DCE Client configuration.

Patch Upgrades

In order to apply a DCE patch, all DCE processes running on the host system must be temporarily shut down during the upgrade. This, of course, is unfeasable under certain circumstances since this may disable clients and impede operations within the cell. It is possible to install a patch and have it stored on the system until such a time as it is possible to shut down the DCE processes and upgrade the patch.

1. Install the patch using the COEInstaller, and choose not to upgrade the patch.

2. When it is possible to upgrade the patch, select Upgrade Patch (Network | DCE | Upgrade Patch) and enter the root password.

3. A COE window will appear with the following message:

```
These are the Patches currently on the system
                P25
            The current patch level is 5
Enter the number of the patch you wish to install
```

Just enter the number of the patch that you wish to install. You will be prompted to confirm your selection. In the example above the answer would be 25.

```
Enter the number of the patch you wish to install? 25
```

4. You will be warned that DCE will be shut down. You will be asked to confirm that you are ready to shut down DCE to install the patch.

5. You will be informed once the patch is installed

De-Installation of DCEC

The DCEC segment cannot be de-installed using the Segment Installer. To de-install the DCEC segment, login as root and do the following steps.

1. Unconfigure all DCE components on the machine using the command:

```
/etc/dcesetup unconfig -force
cell_admin's password:
```

Enter the cell administrator's password. You may be instructed to issue this command twice depending on whether or not the machine is also a DFS client.

2. Use the **dcesetup** command to "**uninstall**" the DCE Client software with the command:

```
/etc/dcesetup uninstall
```

You will be asked if you wish to remove everything

```
Uninstall all (remove everything)? (y, n, q, ?) [n]
```

Answer "**y**" and the **dcesetup** script will remove all of the client software.

3. Remove the DCEC directory structure under the /h partition using:

```
/usr/bin/rm -r /h/COTS/DCE_client
```

4. Use the following commands to remove files from the /etc directory

```
/usr/bin/rm /etc/audit_config.dii
/usr/bin/rm /etc/dce_config.dii
/usr/bin/rm /etc/dce_unconfig.dii
/usr/bin/rm /etc/dtsserver_config.dii
```

5. Finally, to remove the DCES menu item from the sysadmin menubar. Using the **vi** editor, remove the following lines from the **/h/USERS/local/Profiles/SA_Default/Menus/SA_Default.main** file:

```
#------------------
# DCE Menu Items
#------------------
PDMENU  :Network        :1:R1
PRMENU  :DCE            :1:R1
PDMENUEND :

CASCADE :DCE
ITEM    :Configure DCE Client:xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -c_config:1:1:1:R1
ITEM    :Configure DTS server:xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -d_config:1:1:1:R1
ITEM    :Configure Audit server:xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -a_config:1:1:1:R1
ITEM    :Unconfigure DCE :xterm -title "DCE Setup Screen" -e
/h/COTS/DCE_client/bin/SARunDCEConfig -unconfig:1:1:1:R1
ITEM    :Upgrade Patch   :/h/COTS/DCE_client/bin/upgrade:1:1:1:R1
CASCADEEND      :
```

Logging out and back into the environment will update the <NETWORK> | <DCE> menu.